FIG.1

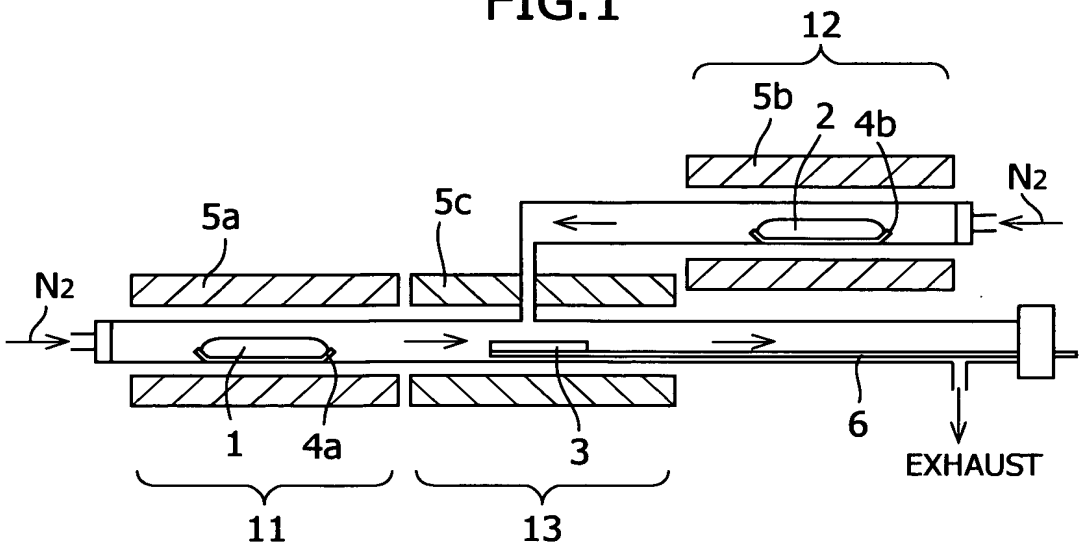

12
5b
2
4b
N2
5a
5c
N2
1
4a
3
6
EXHAUST
11
13

FIG.2

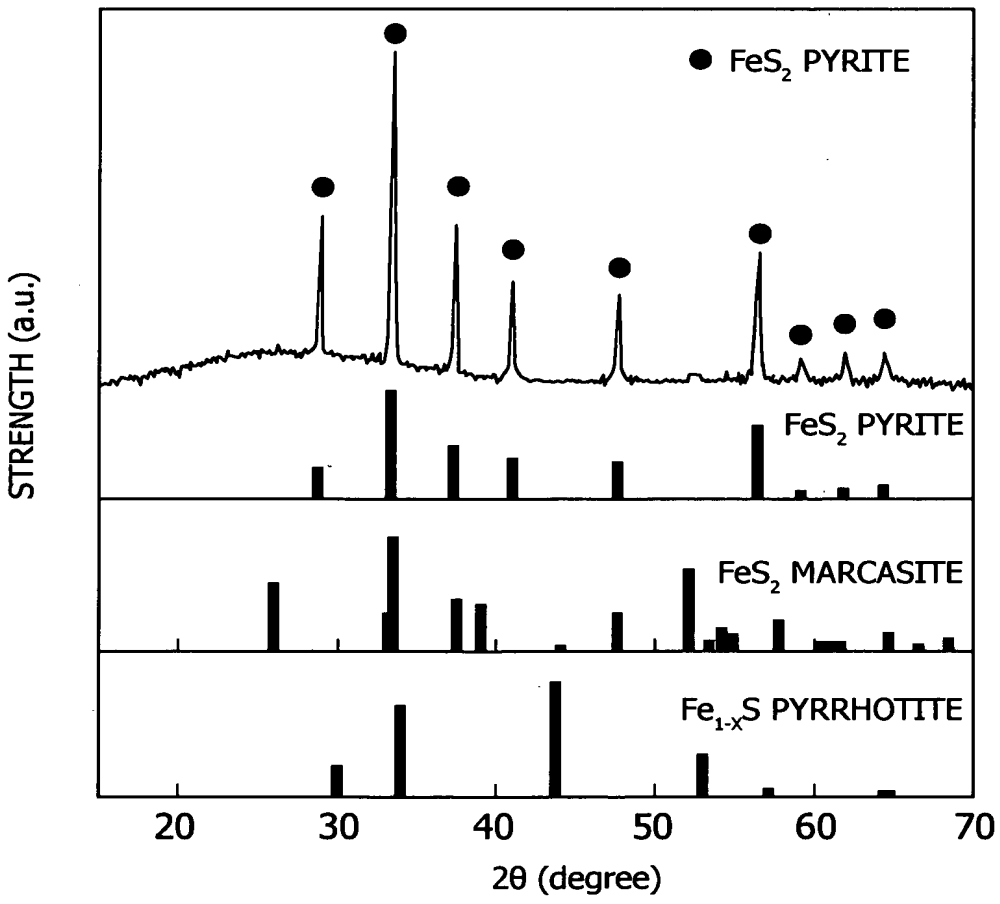

FeS2 PYRITE
FeS2 PYRITE
FeS2 MARCASITE
Fe1-xS PYRRHOTITE
STRENGTH (a.u.)
20
30
40
50
60
70
2θ (degree)

FIG.3

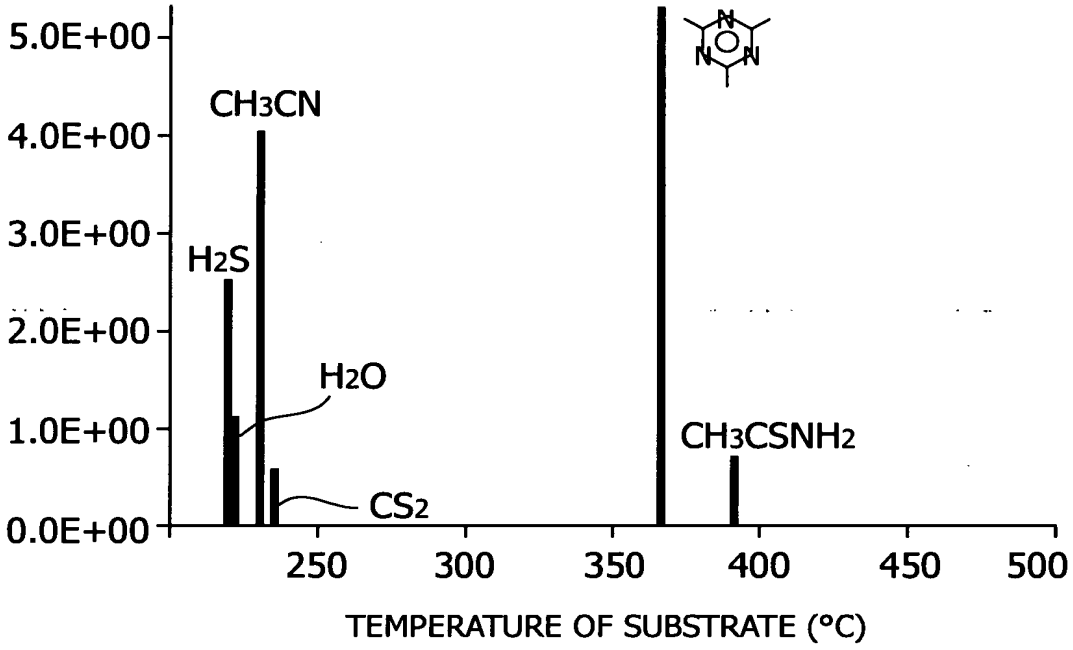
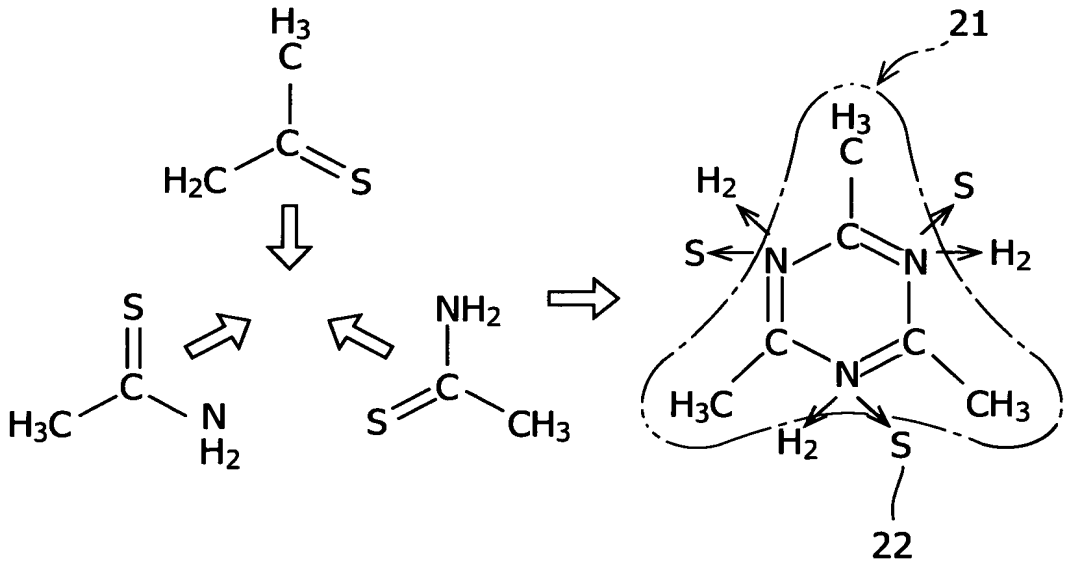

5.0E+00
4.0E+00
3.0E+00
2.0E+00
1.0E+00
0.0E+00
CH3CN
H2S
H2O
CS2
CH3CSNH2
250
300
350
400
450
500
TEMPERATURE OF SUBSTRATE (°C)

FIG.4


H3C
C
H2C
S
S
C
H3C
N
H2
NH2
C
S
CH3
21
H3C
C
H2
S
S
N
C
N
H2
C
C
N
H3C
CH3
H2
S
22